

### REMARKS

Prior to the present Final Office Action, claims 92 and 95-108 were pending. In the Final Office Action dated October 27, 2010, claims 92 and 95-108 have been rejected. By the above amendments, the Applicant has amended claims 92 and 95. Accordingly, claims 92 and 95-108 are still pending. Favorable reconsideration is respectfully requested in view of the amended claims and the arguments set forth fully below.

### Examiner Interview Summary

On February 22, 2011, the undersigned, Richard Percy and Examiner Alexandria Bromell conducted a telephone interview. During the interview, the parties discussed extensively the differences between the present application and the Maynard reference. During the interview, Examiner Bromell indicated that the differences between the present application and the cited prior art were clear.

On February 24, 2011, the undersigned, Richard Percy, Examiner Alexandria Bromell and Supervisory Examiner Cammy Truong conducted a follow-up telephone interview. The Applicants respectfully thank the Examiner's for their willingness to interview this case.

While no specific agreement was reached with respect to claim language, the claim amendments made to the independent claim 92 above were made in response to the discussions had with the Examiners. **Examiner Bromell also asked the undersigned to remind her to review and contact the undersigned once she was in receipt of the present response, in order to contact the undersigned to discuss further claim language.**

During this interview, the Examiners indicated that the Argument and Remarks submitted with the Applicant Initiated Interview Request Form, and further submitted in this Response for the record and convenience, likely obviated the rejections listed in the Final Office Action dated October 27, 2010.

The Applicants look forward to further discussing the claims and the cited prior art with the Examiner.

### Rejections Under 35 U.S.C. §102

Claims 92, and 103-108 have been rejected under 35 U.S.C. §102 as being unpatentable over U.S. Patent No. 6,484,166 to Maynard (hereinafter Maynard). The Applicant respectfully disagrees with this rejection.

It is interesting to note that the date of this patent application is September 2000 which was just as Google was entering the search market but had yet to establish itself in a leadership position, and one gets the impression that Maynard was attempting to develop a better type of search engine.

The focus of the Maynard patent is fundamentally on **search**. There are too many instances to quote all those which reference this aspect, though the 'Abstract' and 'Background' sections provide sufficient framework to understand the goal of this patent:

### **Abstract**

*"An information management, retrieval and display system searches through an informational resource, such as a document (e.g., a treaty), a number of individual documents (e.g., Web pages resident on the Internet), or a stream of information (e.g., DNA code, source code, satellite data transmissions, etc.) and displays the results of the search in an collapsible/expandable format based upon a user-selected display criteria or hierarchy. Such a display hierarchy will allow the end-user to effectively and quickly obtain items of interest from the search results.*

*Generally, the system performs a method for retrieving information from an informational resource that includes the steps of: (a) dividing the informational resource into a plurality of finite elements; (b) assigning a categorical tag to each of the plurality of finite elements, where the categorical tag includes data pertaining to a content of the finite element; (c) generating a searchable database record for each of the plurality of finite elements, where each searchable database record includes at least one string contained within the finite element, where the string can be a word, a phrase, a symbol, a group of symbols, a data segment or the like; (d) supplying a search string; (e) searching the searchable database for searchable database records containing the search string; (1) arranging the results of the searching step in a hierarchal structure according, at least in part, to the data in the categorical tags assigned to the finite elements found in the searching step; and (g) displaying the results of the searching step in the hierarchal structure."*

## **Background**

*“The present invention is a computerized system and method for searching through and retrieving information from an informational resource; and more particularly, the present invention is an information management, retrieval and display system for searching through an informational resource and for displaying the results of the search in an collapsible/expandable format based upon a user-selected display criteria or hierarchy.”*

He also mentions various drawbacks of “*conventional search engines*”, while concluding that “*there is a need for a search engine or search tool that allows the end user to arrange the search results in a manner that allows the end user to effectively and quickly obtain items of interest.*”

It should be noted that the present patent application does not have any aspect in the description or claims relating to ‘search’ whatsoever. There was a similar misunderstanding with previously cited patents in the previous Office Action, namely Larsson and Spackman that related to “... a method and system for indexing information, searching information and providing search results responsive to a query”. Those patents also did not address in any shape or form the focus of the present application, namely the use of codes to directly access web-based information, and the examiner agreed to withdraw all her objections based on Larsson and Spackman. The principle point is that a data classification code has the same function as a hyperlink – namely to link to internet based information – whereas the Dewey decimal and Library of Congress Classification (LCC) systems are merely classification schemes used for cataloguing purposes – or as Maynard would say ‘*categorical reference systems*’. **Importantly, the ‘code’ in these classification schemes is purely an alphanumeric identifier for a given category – but the identifier itself does not connect/link to related information.**

The examiner’s detailed rejection includes:

that the information is classified into one or more subject terms, and all the subject terms are encoded with the alpha-numeric sub-codes (see column 1, line 48 – column 2, line 10, where a data retrieval and display system has an indexing module that stores finite elements about information resources into their category tags, where classification codes and sub codes of both alpha and numeric type, similar to the Dewey decimal system, are stored);

The actual claim language states: “*where a data retrieval and display system breaks up the information resource into finite elements (column 1, line 65), and where categorical tags are assigned to each of the finite elements, (column 2, lines 1-2), and where the categorical tag can include a standard classification such as a ‘Dewey decimal-type’ number. (column 2, line 4-6).*”

The actual text cited by the examiner (column 1, line 48 – column 2, line 10) states:

*“The present invention is an information management, retrieval and display system for searching through an informational resource, such as a document (e.g., a treaty), a number of individual documents (e.g., Web pages resident on the Internet), or a stream of information (e.g., DNA code, source code, satellite data transmissions, etc.) and for displaying the results of the search in an collapsible/expandable format based upon a user-selected display criteria or hierarchy. Such a display hierarchy will allow the end-user to effectively and quickly obtain items of interest from the search results. The type or format of the informational resource is not critical.*

*The invention includes four primary modules, a break module, an indexing module, a search module and an un-break module. The break module is an expert system operating upon a set of expert rules that define its operation. The break module parses through the informational resource to break up the informational resource into finite elements (such as paragraphs, sections, sub-sections, segments etc.). The break module also creates categorical tags for each of these finite elements, where the categorical tags assigned to each of the finite elements are based upon an analysis (defined by the set of expert system rules) of the contents of each of the finite elements. The categorical tag can include a standard classification such as, for example, “Dewey Decimal-type” number. The categorical tag can*

*also include an organizational attribute (such as pertaining to the type or location of the finite element with respect to the rest of the rest of the informational resource), a date-stamp, a categorical word, etc. Preferably, the categorical tags are inserted into the finite element."*

The "**indexing module**" that the examiner cites is only mentioned as one of four modules in the referenced text (column 1, line 61). The "index module" is not actually described by Maynard until later in column 2, lines 12-21.

It is worth exploring Maynard's definition of "**finite element**" further, which is:

" ... *finite elements (such as paragraphs, sections, sub-sections, segments, etc.).*" (column 1, lines 65-66)

*"Each finite element is a user-defined "basket" of information from documents that is to be individually indexed and searched. The finite element is usually not a single word, phrase or symbol, but is a section or portion of an informational resource that can be identified and isolated by the break module. A simple example of a finite element would be the individual paragraphs of a document. Other examples of finite elements would include sub-chapters of a document, individual pages of a document, and other types of identifiable sections of a document."* (column 6, lines 10-20)

The present application does not include, describe, claim or depend upon 'breaking up information resources into multiple, sections or portions' as that would require multiple data classification codes for each information resource (eg: article or page), which would be highly impractical and unfeasible (as it would require, for example, a magazine or newspaper printing numerous codes for each paragraph of an article). An analogy for the difference between the present application's approach and Maynard's could be envisaged in that Maynard's system is the equivalent of describing the individual parts and components that go into manufacturing a car with "a plurality of finite elements", while a data classification code as described in the present system would simply describe the whole car (and not all the 'finite elements' that make up the entire car).

The fact that a "*categorical tag can include a standard classification such as a 'Dewey decimal-type' number*" is merely stating that there are a variety of ways that the finite

elements can be classified. Maynard also states: *"The categorical tag can also include an organizational attribute (such as pertaining to the type or location of the finite element with respect to the rest of the rest of the informational resource), a date-stamp, a categorical word, etc. Preferably, the categorical tags are inserted into the finite element."* (column 2, lines 6-11)

And again:

*"The categorical tags 22a-22z may include a standard classification based upon the content analysis such as, for example, a "Dewey Decimal" type number, or some other categorical reference number. The categorical tag may also include an organizational attribute such as pertaining to the type of finite element or the location of the finite element within the document, a date stamp, a categorical word or phrase summarizing the contents of the finite element, etc. As will be discussed in detail below, the contents of each categorical tag provides information to the search module 12 so as to assist the search module in creating the hierarchical display of the search results."* (column 6, lines 25-36)

There is no mention in Maynard's text of **"classification codes and sub codes of both alpha and numeric type"** at all.

The only mention of "codes" in Maynard's whole patent is in the context of "DNA code", "source code" and "volume 37 of the code of Federal Regulations". His patent does NOT include or describe in any form the **use of codes, information and links to internet based information stored or existing outside of the database server associated with said numbers**, as per the present application.

The actual reference in Maynard's text is *"The categorical tag can include a standard classification such as, for example, a 'Dewey decimal-type' number"*. It is well understood by those of ordinary skill in the art that the Dewey decimal system is purely a type of classification system, in this case using a numerical methodology to classify and categorise material (principally books and periodicals).

The Dewey decimal system is purely a classification system, and there is no description or reference in Maynard's patent to the Dewey decimal system being used to store

**codes, information and links to access internet based information stored or existing outside of the database server associated with said numbers.**

Maynard's text relating to the 'Dewey decimal system' appears in the following context:

*"The break module also creates categorical tags for each of these finite elements, where the categorical tags assigned to each of the finite elements are based upon and analysis (defined by the set of expert system rules) of the contents of each of the finite elements. The categorical tag can include a standard classification such as, for example, "Dewey Decimal-type" number. The categorical tag can also include an organizational attribute (such as pertaining to the type or location of the finite element with respect to the rest of the informational resource), a date-stamp, a categorical word, etc." (column 1, line 67 - column 2, line 10)*

A date stamp for example is also a form of numerical classification, which enables ordering of information in a chronological order, and this system of classification is functionally similar to the Dewey decimal classification system, whereby the system invoked enables a comprehensible method of ordering the relevant information – either by date or category.

The point here is that in Maynard's patent, a user does not enter a code (or a 'Dewey decimal-type' number) to access internet based information stored or existing outside of the database server associated with said numbers – this aspect is never referenced or described at all.

Rather he states:

*"At some point during the process, a user, which may be an end user or may be the expert developing the rule sets, will enter a search query 26 and an optional hierarchical selection 28. The search query may be any conventional search query as available to those of ordinary skill in the art and may include search words or phrases and/or operators tying the words together." (column 6, lines 47-53)*

*"The search module will utilize the search query to search through the database records 24a-24z so as to find the database records 30 matching the words or phrases in the search query."* (column 6, line 65 – column 7, line 1)

It can be clearly understood that a user enters **search words or phrases** to initiate a search query. Maynard does not describe a user entering an alphanumeric code to initiate a search query or to access information.

*"The search module accesses the search query and searches through the reverse index for database records matching the specific search term or query."* (column 2, lines 47-49)

In summary, at no point does Maynard teach or describe the elements of Claim 92 of the present application wherein a database server stores codes, information and links to access internet based information stored or existing outside of the database server associated with said codes.

The examiner's detailed rejection further includes:

a network receiver, wherein the network receiver receives a data classification code from a user's communications device via a wired or wireless network (see column 2, lines 33 – 36, where a classification code symbol segment may be entered for a search);

There is no reference in the cited text to "**classification code**" – instead the text actually states in column 2, lines 33-36:

*"Once the reverse index is created, a search of the reverse index may be performed. Key strings (such as key words, phrases or symbol segments) may be supplied by an end user as a search query, and a display hierarchy or criteria may also be selected or defined by the user."*

Firstly two distinct features must be clarified – 'classification code' and 'symbol segments'.



Maynard refers to 'symbol' on seven occasions, 'symbols' four times, 'segment' twice, and 'segments' twice – there is only one instance of the words '**symbol segment**' together (as cited above).

The definition of 'symbol' in Wikipedia:

"A symbol is something such as an object, picture, written word, sound, or particular mark that represents something else by association, resemblance, or convention."

It is very unusual to enter a 'symbol' in a search query (other than Boolean operators such as "+" and "-") but it is not clear if Maynard meant an operator here, though he does reference operators elsewhere in his text in the same context as 'words or phrases':

*"When a user wishes to conduct a search using the search engine, the user will enter a search query (82) and select an optional hierarchical selection (84). The search query may be any conventional search query as available to those of ordinary skill in the art, it may include a search word or phrases and/or operators tying the words together." (column 13, lines 20-25)*

Nevertheless it is still ambiguous as to what Maynard meant here by 'symbol segments' - though he does state in Fig 2A:

*"For each of the finite elements, generate a searchable database record, where each record contains: - non-common strings (words/phases/symbols) and their frequency (weight)"*

And:

*"Enter search string (Word/Phrase/Symbol)"*

And:

*"(c) generating a searchable database record for each of the plurality of finite elements, where each searchable database record*

*includes at least one string contained within the finite element, where the string can be a word, a phrase, a symbol, a group of symbols, a data segment or the like;*" (Abstract and column 4, lines 26-32)

And:

*"The break module parses through the informational resource to break up the informational resource into finite elements 65 (such as paragraphs, sections, sub-sections, segments, etc.)."* (column 1, lines 64-66)

And:

*"As discussed above this step involves breaking the information resource into identifiable segments of information such as paragraphs, subsections, pages, chapters, subchapters and the like."* (column 8, lines 43-46)

It appears that the words 'symbol' and 'segment' may be accidentally mixed together in the cited text (column 2, lines 33-36), particularly since they do not appear together anywhere else in the entire text or diagrams, and I note that Maynard sometimes does muddle his words, such as in this excerpt for example:

*"Then in functional block 66, the categorical tag of the selected finite element will be used to identify other finite elements that are to be grouped together with the selected finite element to create a contiguous portion of the informational research to be displayed. Finally, in functional block 68, the contiguous portion of the informational resource will be displayed on the display screen or printed."* (column 11, lines 17-25).

'Informational research' is incorrect and should read 'informational resource' as per the rest of the text. It appears that "symbol segments" is a similar mistake and Maynard has mixed up 'symbols' with 'data segment' (particularly since this combination of words only appears once in the entire patent).

In any case, Maynard does not mention "**classification code(s)**" at all. And the 'symbol segment' that Maynard refers to is not described as being an alphanumeric code, and there

is no reference to being able to “enter a classification code for a search” – as is inferred in the rejection.

The examiner’s detailed rejection further includes:

any of a plurality of media channels (see column 2, lines 47 – 49, where the system searches a reverse index for classification code matches, see column 1, lines 48 – 53 where a plurality of indexed and classified channels are searched); and

There are two components to the examiner’s response, so addressing the first one:

The actual text cited states: *“The search module accesses the search query and searches through the reverse index for database records matching the specific search term or query.”* (column 2, lines 47-49)

Therefore the system searches through the reverse index for database records matching the specific search term or query – not “classification code matches”. The ‘search term or query’ is described by Maynard as:

*“The search query may be any conventional search query as available to those of ordinary skill in the art and may include search words or phrases and/or operators tying the words together.”*  
(column 6, lines 50-53 and column 13, lines 22-25)

Clearly the ‘search term or query’ is therefore composed of ‘search words or phrases’, which is evidently not a data classification code.

There is also NO mention or description in Maynard’s patent of “**classification code matches**”. As stated previously, there is no reference in Maynard’s patent to ‘the system searching a reverse index for data classification code matches’ or being able to ‘enter a classification code for a search’ – as the examiner infers here.

Addressing the second component:

The meaning of the present claim language “wherein the data classification code links to the information in any of a **plurality of media channels**” has instead been interpreted as being ‘any of a plurality of indexed and classified channels’. There is certainly no mention in Maynard’s text of the excerpt “where a plurality of indexed and classified channels are searched”. This is a key element of the present claims and evidently needs to be clarified.

The cited text reads:

*“The present invention is an information management, retrieval and display system for searching through an informational resource, such as a document (e.g., a treaty), a number of individual documents (e.g., Web pages resident on the Internet), or a stream of information (e.g., DNA code, source code, satellite data transmissions, etc.) ... ” (column 1, lines 48-53)*

Maynard further qualifies this later:

*“The informational resource may be a single document, a plurality of documents or a stream of data, and the step of identifying the finite elements may include the steps of identifying sections or sub-sections within the document(s) or data stream or by simply identifying the documents themselves.” (column 4, lines 40-44)*

And in Claim 18:

*“18. A method for retrieving information from a dynamic data stream comprising the steps of:*

*(a) receiving the dynamic data stream;*

*(b) dividing the dynamic data stream into a plurality of finite elements, continuously, as the dynamic data stream is received;”*

While the examiner’s use of the word ‘**channels**’ in her excerpt is unclear, since Maynard never uses the word (nor ‘channel’) in his patent, it is perhaps in the sense that Maynard refers to ‘informational resource such as documents, web pages, or data stream’. However, a ‘data stream containing a plurality of finite elements’ is evidently not the same as ‘linking to information in any of a plurality of media channels’, and there may be confusion or misunderstanding between the two.

**Claim 103**

With respect to claim 103, Maynard teaches:

one or more of said data classification codes are printed or displayed together with interrelated information and/or products, or broadcast, distributed or streamed with interrelated data, audio or visual materials (see column 1, lines 48 – 53 where a plurality of indexed and classified channels are classified, indexed, and searched).

The cited text (column 1, lines 48-53) states:

*“The present invention is an information management, retrieval and display system for searching through an informational resource, such as a document (e.g., a treaty), a number of individual documents (e.g., Web pages resident on the Internet), or a stream of information (e.g., DNA code, source code, satellite data transmissions, etc.) ...”*

So it is unclear where the examiner has derived her comment from regarding “a plurality of indexed and classified channels are classified, indexed and searched.”

As stated above (in my comments re the third part of claim 92), the examiner’s use of the word ‘**channels**’ in the excerpt is unclear, since Maynard never uses the word (nor ‘channel’) in his patent, I assume it means in the sense that Maynard refers to ‘informational resource such as documents, web pages, or data stream’.

In any case Maynard never references or describes any aspect that relates to the rejected claim, “wherein one or more of said data classification codes are printed or displayed together with interrelated information and/or products, or broadcast, distributed or streamed with interrelated data, audio or visual materials.”

**Claim 104**

With respect to claim 104, Maynard teaches:

uniform indexing function is provided at each level of said hierarchical structure to display a list of all the subject terms associated with the sub-codes at said level (see column 2, lines 32 – 46, where a display hierarchy is created to show sub codes at that level).

There is no mention of ‘displaying a list of all the terms associated with the sub-codes at each level of the hierarchy’ in Maynard’s cited text, or indeed in his whole patent.

The cited text (column 2, lines 32-46) reads:

*“Once the reverse index is created, a search of the reverse index may be performed. Key strings (such as key words, phrases or symbol segments) may be supplied by an end user as a search query, and a display hierarchy or criteria may also be selected or defined by the user. The selected display criteria will instruct the search module how to manipulate the data of the search results. Specifically, the selected display criteria will define if the search results are to be displayed in an order or structure based entirely upon the information contained within the categorical tags (research centric), if the search results are to be displayed in an order depending entirely upon the frequency of the key strings present in the finite elements (conventional), or if the search results are to be displayed in an order or structure based upon a combination of the two (document-centric).”*

The present claim relates to the ability for a user to navigate through the numerical taxonomy and view a list of the available subject terms at any point in the hierarchy relevant to that particular category and level by entering a specified code that invokes the index, such as ‘00’, however there is no description of such functionality in Maynard’s patent.

#### **Claim 105**

With respect to claim 105, Maynard teaches:

at each level of said hierarchical structure data related to subject-terms associated with the sub-codes are available upon entering a particular sub-code (see column 2, lines 32 – 46, where a display hierarchy is created to show sub codes at that level).

There is no mention of “*where a display hierarchy is created to show sub-codes at that level*” in Maynard’s patent, as asserted by the examiner, and as explained in my comments above re Claim 104.

The cited text (column 2, lines 32-46) reads:

*“Once the reverse index is created, a search of the reverse index may be performed. Key strings (such as key words, phrases or symbol segments) may be supplied by an end user as a search query, and a display hierarchy or criteria may also be selected or defined by the user. The selected display criteria will instruct the search module how to manipulate the data of the search results. Specifically, the selected display criteria will define if the search results are to be displayed in an order or structure based entirely upon the information contained within the categorical tags (research centric), if the search results are to be displayed in an order depending entirely upon the frequency of the key strings present in the finite elements (conventional), or if the search results are to be displayed in an order or structure based upon a combination of the two (document-centric).”*

It is evident that the above description applies to the order or structure the search results are to be displayed in.

This is quite different from ‘displaying data related to subject terms associated with the sub-codes’ – this will display the actual internet-based data or information that is associated with the subject terms and data classification codes at any particular level. This could encompass for example the actual links available, or the number of links available in each of the media channels.

Maynard does not describe 'where a display hierarchy is created to show sub-codes'.

### **Claim 106**

With respect to claim 106, Maynard teaches:

the data classification code one or more of the sub codes are is converted into the associated subject-terms when one or more sub-codes included in the data classification code entered by the user are not associated with information or links to internet based information stored or existing outside of the database server (see column 1, lines 48 – 53 where a plurality of indexed and classified channels are searched).

There is no mention in Maynard's text of codes being converted into words/subject terms.

The cited text (column 1, lines 48-53) reads:

*"The present invention is an information management, retrieval and display system for searching through an informational resource, such as a document (e.g., a treaty), a number of individual documents (e.g., Web pages resident on the Internet), or a stream of information (e.g., DNA code, source code, satellite data transmissions, etc.) ..."*

This claim relates to the ability to convert sub-codes into their associated subject terms so that if for example a particular sub-code does not have any links or information stored in the database server, then the code can be converted into its associated subject terms, and those terms are submitted to a search engine:

This claim covers the system whereby a user could enter a data classification code which has no matching links or information, and therefore the data classification code is translated into the subject terms associated with that code, such that the subject terms can be submitted to an external search engine (they are actually submitted in reverse order as search engines put greater weighting on the first keywords), and the results may then be sent to the user, with a better



probability that the results are relevant since the keywords are inherently encapsulated in a contextual framework – whereas the code 2583 would have no meaning to a conventional search engine.

#### **Claim 107**

the data classification codes entered by the user is supplemented with one or more subject-terms, and is used to search for, access or receive information (see column 1, line 48 – column 2, line 10, where a data retrieval and display system has an indexing module that stores finite elements about information resources into their category tags, where classification codes and sub codes of both alpha and numeric type, similar to the Dewey decimal system, are stored).

The actual text cited by the examiner (column1, line 48 – column 2, line 10) states:

*“The present invention is an information management, retrieval and display system for searching through an informational resource, such as a document (e.g., a treaty), a number of individual documents (e.g., Web pages resident on the Internet), or a stream of information (e.g., DNA code, source code, satellite data transmissions, etc.) and for displaying the results of the search in an collapsible/expandable format based upon a user-selected display criteria or hierarchy. Such a display hierarchy will allow the end-user to effectively and quickly obtain items of interest from the search results. The type or format of the informational resource is not critical.*

*The invention includes four primary modules, a break module, an indexing module, a search module and an un-break module. The break module is an expert system operating upon a set of expert rules that define its operation. The break module parses through the informational resource to break up the informational resource into finite elements (such as paragraphs, sections, sub-sections, segments etc.). The break module also creates categorical tags for each of these finite elements, where the categorical tags assigned to each of the finite elements are based upon and analysis (defined by the set of expert system rules) of the contents of each of the finite elements. The categorical tag can include a standard classification such as, for example, "Dewey Decimal-type" number. The categorical tag can also include an organizational attribute (such as pertaining to the type or location of the finite element with respect to the rest of the*

*rest of the informational resource), a date-stamp, a categorical word, etc. Preferably, the categorical tags are inserted into the finite element."*

There is no mention in Maynard's text about 'codes entered by the user are supplemented with subject terms and used to search for, access or receive information'. An example of this feature might be adding the stock symbol for a company after the code for a stock market/exchange, as illustrated below:

Stocks & Shares > FTSE 100 + Anglo American

Code:        17                34                AAL = **1734aal**

There is no mention in Maynard's text of "classification codes and sub codes of both alpha and numeric type" at all. The only mention of "codes" in Maynard's whole patent is in the context of "DNA code", "source code" and "volume 37 of the code of Federal Regulations". Maynard does NOT describe using codes combined with words to access web-based information.

### **Claim 108**

the data classification codes include supplemental syntax used to identify and modify the information according to specific attributes of the information (see column 1, line 48 – column 2, line 10, where a data retrieval and display system has an indexing module that stores finite elements about information resources into their category tags, where classification codes and sub codes of both alpha and numeric type, similar to the Dewey decimal system, are stored).

The actual text cited by the examiner (column1, line 48 – column 2, line 10) states:

*"The present invention is an information management, retrieval and display system for searching through an informational resource, such as a document (e.g., a treaty), a number of individual documents (e.g., Web pages resident on the Internet), or a stream of information (e.g., DNA code, source code, satellite data transmissions, etc.) and for displaying the results of the search in an collapsible/expandable format based upon a user-selected display*

*criteria or hierarchy. Such a display hierarchy will allow the end-user to effectively and quickly obtain items of interest from the search results. The type or format of the informational resource is not critical.*

*The invention includes four primary modules, a break module, an indexing module, a search module and an un-break module. The break module is an expert system operating upon a set of expert rules that define its operation. The break module parses through the informational resource to break up the informational resource into finite elements (such as paragraphs, sections, sub-sections, segments etc.). The break module also creates categorical tags for each of these finite elements, where the categorical tags assigned to each of the finite elements are based upon an analysis (defined by the set of expert system rules) of the contents of each of the finite elements. The categorical tag can include a standard classification such as, for example, "Dewey Decimal-type" number. The categorical tag can also include an organizational attribute (such as pertaining to the type or location of the finite element with respect to the rest of the informational resource), a date-stamp, a categorical word, etc. Preferably, the categorical tags are inserted into the finite element."*

There is no mention in Maynard's text about 'codes including supplemental syntax to identify and modify the information'. An example of this system would be adding supplemental syntax to designate a specific source for the information and a code to identify the source, as illustrated below:

International News > USA Politics > White House - source: BBC  
Code: 01      35              28              \*              14 = 013528\*14

[A further embodiment is the use of the symbol \* to denote bona fide professional sources, and the symbol # to denote user generated (or "prosumer") content, followed by an appropriate code denoting a specific source].

There is no mention in Maynard's text of "classification codes and sub codes of both alpha and numeric type" at all – as stated in the examiner's remark. The only mention of "codes" in Maynard's whole patent is in the context of "DNA code", "source code" and "volume 37 of the code of Federal Regulations". Maynard does NOT reference or describe using data

classification codes to access information, nor the use of supplemental syntax to identify or modify the information.

Claims 103-108 are dependent upon the independent claim 92. As discussed above, the independent claim 92 is allowable over the teachings of Maynard. Accordingly, claims 103-108 are also allowable as being dependent upon an allowable base claim.

Rejection Under 35 U.S.C. §103

Claims 95-102 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Maynard in view of Goetz

**Claim 95**

With respect to claim 95, Maynard does not explicitly disclose all of said sub-codes comprise a two digit code.

However, Goetz teaches:

all of said sub-codes comprise a two digit code (see table 1, LCC, where two digit sub-codes are used, e.g. PN, QA, TK, AN, PN, GV, etc.).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the teachings of Maynard with the teachings of Goetz in order to use the Dewey Decimal System and the Library of Congress system to efficiently classify documents for retrieval over the internet.

The Office Action only mentions the first six sub-codes, but it is clear that Goetz does not teach that “all the LCC sub-codes comprise a two digit code” – in Table 1 it is evident that there are in fact a variety of codes, for example:

QA76+	Two letters, two numbers and a symbol
TK 5105	Two letters, a space and four numbers
H-HJ	One letter – two letters
PN1995.3	Two letters, four numbers, a stop and one number
L	One letter
N	One letter

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TR1-1050	Two letters, one number – four numbers
H-HX	One letter – two letters
D-DL	One letter – two letters
E-F	One letter – one letter

So not ALL the sub-codes comprise a two digit code. The consistency of all sub-codes being comprised of two digits is very important for the system in the present application to be able to determine that 1234 is composed of two pairs: 12 & 34, and no other possible permutation. Whereas without such a consistent scheme for all sub-codes, 1234 could possibly be construed as: 123 4, or 1 23 4, or 12 34, or 1 234, or 1234. While the human eye can determine these differences on paper, a software program could not do so without additional syntax or symbols (the present application does not require any such syntax, except to denote additional attributes aside from the core information – as described in Claim 108).

Another key point is that neither the LCC nor the Dewey decimal system actually “classify documents for retrieval over the internet”– they merely provide a classification system for cataloguing library material (primarily books, periodicals and documents) – they do not provide either a system or the mechanism (such as a hyperlink) to retrieve relevant documents directly over the internet.

To understand this one should go to <http://dewey.info/> which is “an experimental space for linked DDC data. The intention of the dewey.info prototype is to be a platform for Dewey data on the Web.”

If you then select a classification under “Some Examples” – for instance <http://dewey.info/class/641/> and click on that link, it opens a page with further results relating to that classification – <http://dewey.info/class/641/about> and one can then click on for example the ‘sub-code’ link to Beverages (Drinks) – 641.2 which opens another page <http://dewey.info/class/641.2/2009/07/about.en> but if one then clicks on the link on that page – nothing further happens. It crucially **does not “retrieve documents over the internet”** as the examiners asserts. That is because it is just a classification system.

So the Dewey decimal system is purely a classification system, and lacks the essential components contained in the present application “wherein the database server stores data classification codes, information **and links to internet based information stored or existing outside of the database server** associated with said data classification codes”

#### **Claim 96**

With respect to claim 96, Maynard does not explicitly disclose all of said sub-codes have the same uniform data structure.

However, Goetz teaches:

all of said sub-codes have the same uniform data structure (see table 1, where all sub codes have the same uniform data structure).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the teachings of Maynard with the teachings of Goetz in order to use the Dewey Decimal System and the Library of Congress system to efficiently classify documents for retrieval over the internet.

Not all sub-codes for either the Dewey decimal or LCC systems have the same uniform data structure. See comments for Claim 95 above.

Goetz does not teach that “all the sub-codes have the same uniform data structure” – in Table 1 it is possible to see that there are in fact a variety of sub-codes, for example:

#### **Under DDC**

791	Three digits
070.1+	Three digits, a stop, one digit and a symbol
302.23+	Three digits, a stop, two digits and a symbol
070.4332	Three digits, a stop, four digits
791.092	Three digits, a stop, three digits

#### **Under LCC**

QA76+	Two letters, two numbers and a symbol
TK 5105	Two letters, a space and four numbers
H-HJ	One letter – two letters
PN1995.3	Two letters, four numbers, a stop and one number

L	One letter
N	One letter
TR1-1050	Two letters, one number – four numbers
H-HX	One letter – two letters
D-DL	One letter – two letters
E-F	One letter – one letter

So it is incorrect to state that “ALL the sub-codes have the same uniform data structure”.

And as stated above, neither the LCC nor the Dewey decimal system actually “classify documents for retrieval over the internet”– they merely provide a classification system for cataloguing library material (primarily books, periodicals and documents) – they do not provide either a system or the mechanism (such as a hyperlink) to retrieve relevant documents directly ~~from~~ over the internet. Therefore neither Maynard nor Goetz teach the essential components contained in the present application “wherein the database server stores data classification codes, information **and links to internet based information stored or existing outside of the database server** associated with said data classification codes”

#### Claim 97

With respect to claim 97, Maynard does not explicitly disclose data classification codes include a sequence of two digit sub-codes.

However, Goetz teaches:

data classification codes include a sequence of two digit sub-codes (see table 1, LCC, where two digit sub-codes are used for classification).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the teachings of Maynard with the teachings of Goetz in order to use the Dewey Decimal System and the Library of Congress system to efficiently classify documents for retrieval over the internet.

Not all sub-codes for either the Dewey decimal or LCC systems “include a sequence of two digit sub-codes”. See comments for Claim 95 above.

Goetz does not teach that all the LCC sub-codes use a sequence of two digit sub-codes – in Table 1 it is evident that there are in fact a variety of sub-codes, for example:

QA76+	Two letters, two numbers and a symbol
TK 5105	Two letters, a space and four numbers
H-HJ	One letter – two letters
PN1995.3	Two letters, four numbers, a stop and one number
L	One letter
N	One letter
TR1-1050	Two letters, one number – four numbers
H-HX	One letter – two letters
D-DL	One letter – two letters
E-F	One letter – one letter

So the sub-codes do not (always) “include a sequence of two digit sub-codes”.

And as stated above, neither the LCC nor the Dewey decimal system actually “classify documents for retrieval over the internet”– they merely provide a classification system for cataloguing library material (primarily books, periodicals and documents) – they do not provide either a system or the mechanism (such as a hyperlink) to retrieve relevant documents directly ~~from~~ over the internet. Therefore neither Maynard nor Goetz teach the essential components contained in the present application “wherein the database server stores data classification codes, information **and links to internet based information stored or existing outside of the database server** associated with said data classification codes”.



**Claim 98**

With respect to claim 98, Maynard does not explicitly disclose data classification codes include a sequence of one or more of said numeric or alpha-numeric sub- codes.

However, Goetz teaches:

data classification codes include a sequence of one or more of said numeric or alpha-numeric sub- codes (see table 1, DDC, where numeric codes are used, combined with LCC, where two digit alpha sub-codes are used for classification).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the teachings of Maynard with the teachings of Goetz in order to use the Dewey Decimal System and the Library of Congress system to efficiently classify documents for retrieval over the internet.

Firstly, “DDC, where numeric codes are used”, are not intended or designed to be “combined with LCC, where two digit alpha sub-codes are used”.

The function of Table 1 is not for the purpose of combining the DDC and LCC codes. There is no supporting evidence at all to substantiate where Dewey decimal codes are ever combined with LCC codes.

Instead Table 1 is designed to enable **the comparison** of Yahoo, DDC and LCC codes. It clearly states in the paragraph preceding the table that:

“To determine how well library classification systems compare to Internet classifications in terms of general topic coverage, categories 1-10 and 35-45 of Yahoo’s 50 most popular categories were compared to DDC and LCC. The results are shown in Table 1.”

Therefore it is incorrect that “Goetz teaches data classification codes include a sequence of one or more of said numeric or alpha-numeric sub-codes [as in] Table 1, DDC, where numeric codes are used, **combined** with LCC, where two digit alpha sub-codes are used for classification”.

And as stated above, neither the LCC nor the Dewey decimal system actually “classify documents for retrieval over the internet”– they merely provide a classification system for cataloguing library material (primarily books, periodicals and documents) – they do not provide either a system or the mechanism (such as a hyperlink) to retrieve relevant documents directly ~~from~~ over the internet. Therefore neither Maynard nor Goetz teach the essential components contained in the present application “wherein the database server stores data classification codes, information **and links to internet based information stored or existing outside of the database server** associated with said data classification codes”.

### Claim 99

With respect to claim 99, Maynard does not explicitly disclose the sub- codes are used to navigate to desired subject terms by abbreviating or extending the sub-codes in the data classification code.

However, Goetz teaches:

the sub- codes are used to navigate to desired subject terms by abbreviating or extending the sub-codes in the data classification code (see table 1, LCC, where two digit sub-codes are used, which are abbreviated, for example, Computer Science is abbreviated as QA; Telecommunication is abbreviated as TK).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the teachings of Maynard with the teachings of Goetz in order to use the Dewey Decimal System and the Library of Congress system to efficiently classify documents for retrieval over the internet.

It is clear from the example cited by the examiner that there is a significant misunderstanding over the terms “abbreviating” and “extending”. The Examiner is referring to the abbreviation of a word or words into letters which become a representation of the word(s) – such as when “Computer Science is abbreviated as QA”. However the present application refers to ‘shortening’ or ‘lengthening’ the actual sequence (or string) of sub-codes to enable navigation to higher (eg: broader) or lower (eg: narrower) categories of topics.

For example, if a user has a code which might be for example 123456. The user can explore further related topics at this level or navigate up or down the levels in the hierarchy/taxonomy. This can be easily executed by the user as follows:

Current code	.	123456
To navigate higher up the hierarchy	change the code to	1234
To explore the current level	change the code to	123400
To navigate lower down the hierarchy	change the code to	12345600

Thus it is possible for a user to explore and navigate through the available subject-terms purely by “**abbreviating**” or “**extending**” the sub-codes.

And as stated above, neither the LCC nor the Dewey decimal system actually “classify documents for retrieval over the internet” – they merely provide a classification system for cataloguing library material (primarily books, periodicals and documents) – they do not provide either a system or the mechanism (such as a hyperlink) to retrieve relevant documents directly ~~from~~ over the internet. Therefore neither Maynard nor Goetz teach the essential components contained in the present application “wherein the database server stores data classification codes, information **and links to internet based information stored or existing outside of the database server** associated with said data classification codes”.

#### **Claim 100**

With respect to claim 100, Maynard does not explicitly disclose each of the sub-codes at each level of the hierarchical structure is associated with a certain subject-term, and each of the subject terms at each level of the hierarchical structure is encoded with a certain sub- code.

However, Goetz teaches:

each of the sub-codes at each level of the hierarchical structure is associated with a certain subject-term, and each of the subject terms at each level of the hierarchical structure is encoded with a certain sub- code (see figure 2, which shows

that the sub codes appear in a hierarchical structure associated with a certain subject term).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the teachings of Maynard with the teachings of Goetz in order to use the Dewey Decimal System and the Library of Congress system to efficiently classify documents for retrieval over the internet.

The Office Action also states that “Goetz teaches each of the sub-codes at each level of the hierarchical structure is associated with a certain subject term, and each of the subject terms at each level of the hierarchical structure is encoded with a certain sub-code” and references Figure 2.

However it is evident that in Figure 2, Dewey Edition 21 Education Online, ‘that the sub-codes’ **do not** ‘appear in a hierarchical structure’, and that there are some subject terms that have codes and equally some that do not. In fact, in Figure 2, only 32 out of 56 subject terms have a sub-code at all.

For example:

In the first column (furthest to the left) ‘Adult education’ has a code (# 1), but ‘Secondary education’ and ‘Elementary education’ do not have any codes.

In the next column below ‘Higher education (# 16)’ – ‘Colleges and universities’ has a code (# 37) but ‘Organization and activities’ below it in the same column does not have a code.

There are numerous examples of inconsistency where some subject terms have codes and others do not, but it is certainly incorrect to state that “each subject term at each level of the hierarchical structure is encoded with a certain sub-code”.

And as stated above, neither the LCC nor the Dewey decimal system actually “classify documents for retrieval over the internet”– they merely provide a classification system for cataloguing library material (primarily books, periodicals and documents) – they do not provide either a system or the mechanism (such as a hyperlink) to retrieve relevant documents directly over the internet. Therefore neither Maynard nor Goetz teach the essential components contained in the present application “wherein the database server stores data classification codes, information **and links to internet based information stored or existing outside of the database server** associated with said data classification codes”.

### Claim 101

With respect to claim 101, Maynard does not explicitly disclose the data classification codes consist solely of a combination of said sub-codes.

However, Goetz teaches:

the data classification codes consist solely of a combination of said sub-codes (see table 1, LCC, where two digit sub-codes are used).

It is asserted that “Goetz teaches the data classification codes consist solely of a combination of said sub-codes (see table 1, LCC, where two digit sub-codes are used).”

However, as already described above, the codes used by the LCC vary considerably and do not consist solely of a combination of two digit sub-codes. Many different combinations are used, as illustrated in the extracts from Table 1 below:

QA76+	Two letters, two numbers and a symbol
TK 5105	Two letters, a space and four numbers
H-HJ	One letter – two letters
PN1995.3	Two letters, four numbers, a stop and one number
L	One letter
N	One letter
TR1-1050	Two letters, one number – four numbers
H-HX	One letter – two letters
D-DL	One letter – two letters
E-F	One letter – one letter

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Claims 95-102 are dependent upon the independent claim 92. As discussed above, the independent claim 92 is allowable over the teachings of Maynard. Accordingly, claims 95-102 are also allowable as being dependent upon an allowable base claim.

Conclusion

For these reasons, Applicant respectfully submits that all of the claims are now in a condition for allowance, and allowance at an early date would be appreciated. Should the Examiner have any questions or comments, they are encouraged to call the undersigned at 414-271-7590 to discuss the same so that any outstanding issues can be expeditiously resolved.

Respectfully submitted,

ANDRUS, SCEALES, STARKE & SAWALL, LLP

A handwritten signature in cursive script, reading "Christopher M. Scherer".

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